MASPS for ADS-B Rev. A

Tracking Information (committee secretary only)	
Change Issue Number	40
Submission Date	5/14/01
Status (open/closed/deferred)	REJECTED
Last Action Date	5/24/01

Short Title for Change Issue:	Edit text of the ADS-B MASPS (DO-242), as needed, to embrace the notion that ADS-B application enabling software, at the discretion of the applicant, can be treated as discrete, modular software. Might there be a process so that modular ADS-B software could receive a TSO, and be transportable to other hardware platforms?

MASPS Document Reference:		Originator Information:	
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Proposed Rationale for Consideration (originator should check all that apply):	
	Item needed to support of near-term MASPS/MOPS development
	DO-260/ED-102 1090 MHz Link MOPS Rev A
	ASA MASPS
	TIS-B MASPS
	UAT MOPS
	Item needed to support applications that have well defined concept of operation
	Has complete application description
	Has initial validation via operational test/evaluation
	Has supporting analysis, if candidate stressing application
	Item needed for harmonization with international requirements
	Item identified during recent ADS-B development activities and operational evaluations
	MASPS clarifications and correction item
	Validation/modification of questioned MASPS requirement item
	Military use provision item
	New requirement item (must be associated with traffic surveillance to support ASAS)

Nature of Issue:		Editorial		Clarity		Performance		Functional

Issue Description:

Recently, RTCA published DO-255 (i.e., the Avionics Computer Resource). This RTCA DO document allows for the use of partitioned software. The issue is whether the ADS-B MASPS group needs to insert specific enabling language into the 242A document so implementators may, at their option, certify the various ADS-B "tools", i.e., the enabling software as modular. Restated, what provisions, if any, are needed in DO-242A so as to allow specific implementers the opportunity to incorporate modular software into their designs?

A specific recommendation might be to allow ADS-B software configurable items to be certified at a specific DO-178B criticality level. Is there a way to relate the various ADS-B applications to some kind of software criticality matrix? Might it be possible to integrate them into "classes" such as those that support situational awareness only, those that support spacing applications, and those that support separation assurance? If enabled by DO-242A, such an approach could significantly reduce the certification burden by allowing for re-use of certification code. Additionally, it could also reduce the need for submittal of identical data for use in look-alike systems.

Originator's proposed resolution if any: None submitted.

Working Group 6 Deliberations:

May 24, 2001: This Issue Paper was discussed by ad hoc group at their May 2001 meeting. It was agreed this Issue Paper should be REJECTED because it is out of scope for the ADS-B MASPS since the ADS-B MASPS is not meant to give hardware and/or software design standards.